



Erasmus+ Capacity Building in Higher Education Project

Engineering curricula modernization in renewable energy in Albanian Universities / ENGINE

619338-EPP-1-2020-1-AL-EPPKA2-CBHE-JP

WP4 – D4.2 Final Evaluation Report

Prepared by:

Michail Delagrammatikas CRE.THI.DEV. (P11)

November 2023

Disclaimer: This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the ENGINE consortium and do not necessarily reflect the views of the European Union.







TABLE OF CONTENTS

Abb	reviations and Acronyms	4
1.	Introduction	6
2.	Evaluation of Transnational Events (TPM, Study Visits, Workshops)	6
2	.1 Methodology	6
2	.2 Results	7
2	.3 Discussion of results and recommendations	9
3.	Evaluation of Deliverables	11
4.	Conclusions	15







Responsible partner for deliverable:	CRE.THI.DEV.
Contributing partners:	All
Target Group(s):	Partners of the consortium
Distribution level:	Partnership
Total number of pages:	
Version:	2.0
Reviewed by:	All
Status:	Final

Version control

Number	Date	Description
1.0	09/11/2023	First draft – distributed to all partners for comments
2.0	14/11/2023	Final Version

All rights are reserved. Copyright © ENGINE Consortium, 2020-2023







Abbreviations and Acronyms

Abbreviation/acronym

DEF	Deliverable Evaluation Form
dCM	Deputy Quality Manager
DT	Document Template
EACEA	Education, Audiovisual and Culture Executive Agency
EC	European Commission
EEF	Event Evaluation Form
EU	European Union
EQE	External Quality Evaluator
GA	Grant Agreement
HEI	Higher Education Institution
КОМ	Kick off Meeting
MEF	Meeting Evaluation Form
QAF	Quality Assessment Form
PQC	Project Quality Committee
QEP	Quality Evaluation Plan
QM	Quality Manager
QPS	Quality Plan Spreadsheet
SC	Steering Committee
TET	Training Evaluation by Trainees



ALBENECON



cre thi dev





ТРМ	Transnational Project Meeting
WP	Work Package
WPL	Work Package Leader
WPcL	Work Package co-Leader









1. Introduction

In order to assure the production of high-quality results, the efficiency and improvement, when needed, of project processes and the measuring of the impact of the project activities to the target groups, a series of evaluations were performed during the lifetime of the project for assessing cooperation amongst the partnership and effectiveness and impact of transnational activities such as study visits and workshops.

In addition, the Quality Gantt Chart of the project presents the workflow and delivery of results of the project, while an additional spreadsheet is used for estimating KPIs met and project impact.

All the above are presented in this final quality report.

2. Evaluation of Transnational Events (TPM, Study Visits, Workshops)

2.1 Methodology

ENGINE project implementation comprised different transnational events, such as Study Visits, Workshops and Transnational Project Meetings. Study Visits and Workshops, incorporated functions of TMP as well. For the evaluation of each kind of project component a set of indicators have been established. These indicators are presented as questions that are included in specific questionnaires, their form depending on the component evaluated. There are two types of questions used: a) closed type questions that can be answered either with the aid of a five-point rating scale and b) open ended questions for the free expression of the opinion of the respondents. For the evaluations, two different questionnaires were used, one for the meetings, and one for the Study Visits and Workshops

In the case of the five-point rating scale, "5" corresponds to very positive opinion or full agreement and "1" corresponds to very negative opinion or full disagreement. The results are given as the weighted average. The formula for the evaluation of results is the following:

[(1a + 2b + 3c +4d + 5e)/5 (a+b+c+d+e)] %

Where:

a, b, c, d, and e are the numbers of questionnaires that rated the indicator with 1, 2, 3, 4 and 5 respectively.







The questionnaires were circulated to the partners as google forms and the elaboration of the answers was made by CRE.THI.DEV, with the use of excel.

For the questions with a five-point rating scale, the component was considered successful if the percentage of satisfaction (weighted average) was equal or more than 70%. Number of votes bellow this threshold is reported in all questions. Minimum and maximum values of the 1-5 scale are also indicated. Open ended question answers are also reported when they convene useful information.

Additional statistics presented are number and percentage of participants that took part in the evaluation procedure, number and percentage of participants originating from Albanian or programme countries' organisations and number and percentage of participants affiliated with HEIs or non-educational organisations.

The results of the evaluations are presented in the TPMs and comments and suggestions for improvement are taken into account.

2.2 Results

During the implementation period of the project, six transnational events were evaluated. Two were TPM, two Study Visits and two Workshops. The evaluation questionnaire used in each of these was related to the main character of the event. Online coordination events were not evaluated with questionnaires. Due to traveling restrictions related to COVID-19 certain transnational event were either held online or transferred to a later date.

The statistics for participation in the evaluation of the 6 international events is presented in Table 1.

	Evaluation of Transnational Events Statistics											
	Study Visi	t in Gent	TPM in Sofia May-June 2022		Workshop in Psachna March 2023		Study Visit in Istanblul May 2023		Workshop in Durres June 2023		TPM in Tirana November 2023	
	April 2	2022										
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Participants in event	38		28		34		26		28		26	
Questiannaires collected	29	76.32	17	60.71	25	73.53	18	69.23	21	75.00	19	73.08
Albanian organisations	10	76.92	12	70.59	21	84.00	16	88.89	19	90.48	15	78.95
non-Albanian organisations	3	23.08	5	29.41	4	16.00	2	11.11	2	9.52	4	21.05
Educational organisation	22	84.62	14	82.35	22	88.00	15	83.33	13	61.90	15	78.95
non-Educational organisation	4	15.38	3	17.65	3	12.00	3	16.67	8	38.10	4	21.05
Min rating	3		2		3		3		3		3	
Max rating	5		5		5		5		5		5	

Table 1. Statistics for the participation in evaluation of transnational events

The results of the evaluation questionnaires of the transnational project events are presented in Tables 2 to 4.







Evaluation of Study Visits						
	KU	L - Gent c April 20		KHAS - Istanbul May 2023		
	Average	Lowest vote	Occurrence of votes ≤ 3	Average	Lowest vote	Occurrence of votes ≤ 3
Was the preparation of the study visit adequate?	97	4		96	4	
Was the preparation of the study visit inclusive?	93	3	3	92	3	3
Was the invitation clear as to the purpose and agenda of the study visit?	98	3	1	98	3	1
Was the study visit well organized?	97	4		97	4	
Did the speakers addressed each subject adequately?	97	4		94	4	
Did the study visit manage an adequate level of interaction between participants?	91	4		92	3	1
Did the study visit manage to offer you useful ideas and concepts that you may		_	_		-	_
apply in your institution in the near future?	92	3	2	90	3	2
Did the study visit manage to offer you useful ideas and concepts that you would propose for the strategic planning of your organisation?	88	3	5	91	3	2
Did the study visit manage to offer you useful ideas and concepts related to your						_
organisation activities?	92	4		91	3	2
Do you believe that, after attending the study visit, you are better equipped for the						
implementation of the Engine project tasks?	92	4		93	4	

Table 2. Evaluation of Study Visits

Evaluation of V	Evaluation of Workshops					
	NKUA	A - Evripos March 20			urres)23	
		Lowest	Occurrence		Lowest	Occurrence of
	Average	vote	of votes ≤ 3	Average	vote	votes ≤ 3
Vas the preparation of the workshop adequate?	96	4		96	3	1
Vas the preparation of the workshop inclusive?	92	3	2	92	3	2
Vas the invitation clear as to the purpose and agenda of the workshop?	98	3	1	98	4	
Vas the workshop well organized?	97	4		97	3	1
)id the speakers addressed each subject adequately?	94	4		94	4	
Jid the workshop manage an adequate level of interaction between participants?	92	3	2	92	3	2
Did the workshop manage to offer you useful ideas and concepts that you may apply in your institution in the near future?	90	4		90	4	
Did the workshop manage to offer you useful ideas and concepts that you would						
propose for the strategic planning of your organisation?	91	4		91	3	2
Did the workshop manage to offer you useful ideas and concepts related to your						
organisation activities?	91	3	2	91	3	2
Do you believe that, after attending the workshop, you are better equipped for the						
implementation of the Engine project tasks?	93	4		93	4	

Table 3. Evaluation of Workshops







Evaluation	of TPM					
	TUS - Sofia May-June 2022			UET - Tirana November 2023		
		Lowest	Occurrence		Lowest	Occurrence of
	Average	vote	of votes ≤ 3	Average	vote	votes ≤ 3
Was the preparation of the TPM adequate?	92	3	2	97	4	
Was the preparation of the TPM inclusive?	93	3	2	95	4	
Was the invitation clear as to the purpose and agenda of the TPM?	96	3	1	97	3	1
Was the TPM well organized?	89	3	3	95	3	1
Was the venue well equipped and accessible?	93	4		99	4	
Was the agenda and time frame respected?	88	2	3	98	4	
Did the speakers addressed each subject adequately?	91	3	1	99	4	
Did the TPM manage to enhance collaboration between partners?	91	3	1	98	4	
Do you think that you are well equipped for implementing the project activities due						
over the next 6 months	89	3	2	N/A		
Do you think that the TPM managed achieve its goals?	89	2	1	98	4	
Which of the open WPs do you think is at any kind of risk or need special attention?	17col	lected ques	stionnaires	19 col	lected que	stionnaires
WP1						
WP2					2/19	
WP3		5/17			4/19	
WP4		3/17			3/19	
WP5		1/17			3/19	
WP6		2/17				

Table 3. Evaluation of TPMs

2.3 Discussion of results and recommendations

Participation in transnational events was at adequate levels, especially concerning the participation of Albanian HEIs and ASCAL (Quality Assurance Agency in Higher Education), which is key for maximizing impact and achieving sustainable results. Participation of programme countries' organisations was not at the same level as far as the number of persons participating in the different activities, nevertheless, most programme countries' organisations were represented in all events and effectively supported the activities. This is also evident in the number of evaluation questionnaires collected after each activity which were answered by Albanian based organisations members a rate of more than 8 out of 10 in average. Similar is the percentage of participants from educational institutions vs non-educational institutions which was slightly less than 8 out of 10, most of the non-educational organisations participants being from ASCAL, which again is a good indicator for the sustainability of the project results as these have been supported and closely monitored while being developed by the Quality Assurance Agency in Higher Education. Participation in the evaluation of the results was at acceptable levels (about 7 out of 10







participants took part in the evaluation) and allowed for conclusions to be made and feedback to be provided during the project implementation (see Table 1).

The evaluation results indicate a proper and without major problems implementation of the project activities. No red flags were raised as the threshold of 70% was never met in any of the assessed topics, in any of the events. Actually, the rating varied from 88% to 99%. The rating system, allowing a choice of votes between 1 and 5, includes a median value of 3, which in many cases is avoided due to the tendency of the participants not to vote for extreme positions. Putting the threshold at a value of 70% (3.5 according to the voting system) positions this "neutral" vote to the negative side of the evaluation scale. This was done to counterbalance the tendency of participants in the evaluation of project activities to be more positive in their judgment due to the personal relations established in the consortium.

Taking into account the above points and that all evaluation results were well above the 70% threshold, evaluation results were treated and presented to the partners through a different comparative methodology, which highlights the relatively weakest points and allows for mitigation measures to be taken in time.

The relatively weakest points, having an average rating between 88 and 91 or a number of negative votes i.e. less than 3 (highlighted in bold lettering in Tables 2 - 4), are divided into two categories:

- Organisation and participation issues, and
- Capacity Building related issues

Organization and participation issues did not score relatively low on average but exhibited a number of negative votes. Two issues were highlighted inclusiveness in the design of the activities and interaction between participants, as these have an indirect impact on the project results. Though the rating was high (over 90%) a small improvement was achieved in the rating of activities that took place at a later time.

Capacity Building related issues, on the other hand, had to do with the direct impact of the activities. Again the overall conclusion is that of a successful and satisfactory implementation of transnational events, but one point highlighted is that best practices from programme countries' universities cannot be directly transferred to the Albanian HEIs under a short-term capacity-building process.

In the case of TPM a further attention was given to WPs that according to the participants required more attention either during implementation or for building solid grounds towards the sustainability of the project. These were discussed during the Final TPM in Tirana and the results of the evaluation report are indicative.







Summarising the findings of the evaluation reports, six recommendations were formulated, the last four still having a great value for the sustainability period of the project:

- 1. Design transnational events in a more inclusive way, so that participants know what to expect and be prepared to gain the maximum from their visit.
- 2. Design transnational events so that interaction between participants is encouraged and promoted, as this allows the perception of new practices and ideas to become commonly owned by the participants.
- 3. Think on multiple levels about how to make use of knowledge and experience gained through study visits and workshops to maximize the project impact and achieve the project vision in the strategic development of the Albanian HEIs.
- 4. Think about the infrastructure and human resources needed to achieve short and long-term impact by utilizing knowledge and experience gained.
- 5. Consider overcoming limitations by enhancing international collaborations in education and research. This should be perceived not only in quantitative terms but also qualitatively by incorporating international collaborations (including joint research projects and mobility of students and staff) in the research and educational process.
- 6. Think of ways to include industrial partners in research and educational activities, especially for co-financing of infrastructure and for human resources development.

3. Evaluation of Deliverables

The objectives of ENGINE project, summarized below, have been reached by the successful realization of the project tasks and development of the project Deliverables:

- To analyse the educational needs in engineering for renewable energies through problem and job analysis, and to define the necessary knowledge, skills and competencies of engineers in the sector of renewable energies in terms of learning outcomes.
- 2) To design syllabi and course content and assessment for compulsory and elective courses in VET and bachelor engineering education for renewable energy to meet the market needs and upgrade the university academic offer accordingly.







- 3) To develop new e-learning courses with modular structure for the innovated curricula of Partner HEIs and to establish a platform for knowledge sharing between Albanian HEIs and program partner institutions.
- 4) To innovate the laboratory equipment and to perform a pilot test and to start the implementation of the joint modules/course's delivery during the last project year.

The summary of project outputs achieved are presented in table 5:

Work packages/ OUTPUTS	Title	Achievement assessment
1	PREPARATION Electrical Engineering and Energy study practices analysis and in-depth needs assessment in Partner Albanian HEIs	100%
1.1	In-depth desk research assessment and report for Albania and partner HEIs	Delivered
1.2	Development of questionnaire and interviews with relevant stakeholders and creation of the competence matrix	Delivered
1.3	Report on the best practices in Program HEIs and global trends	Delivered
1.4	Job/domain analysis and development of guidelines for learning outcomes for VET and bachelor new and updated study programs	Delivered
2	DEVELOPMENT Syllabi and course content development	100%







2.1	Design of the new VET degree in Electrical Engineering and Renewable Energy	Delivered
2.2	Design of the 6 new courses for existing relevant bachelor study programs	Delivered
2.3	Design of the 6 new courses for existing relevant bachelor study programs	Delivered
3	DEVELOPMENT	
	e-learning courses development and capacity building for staff	100%
3.1	Design, development and deployment of e-learning courses	Delivered
3.2	Capacity building for Partner HEIs teaching staff in micro learning, project-oriented teaching (new teaching methods) and gaming	Delivered
3.3	Creation of the ENGINE online platform	Delivered
3.4	Creation of the new teaching material for laboratory work	Delivered
4	QUALITY PLAN Quality and evaluation	100%
4.1	Evaluation Plan	Delivered
4.2	Interim and final evaluation reports	Delivered
4.3	External evaluation reports	Delivered
5	DISSEMINATION & EXPLOITATION Dissemination and exploitation activities of project results and achievements	100%







5.1	Setting up and maintaining the project Web site	
5.1	(including project visual identity – logo)	Delivered
5.2	Consolidation of Dissemination and Exploitation Strategy	Delivered
5.3	Two papers on project activities and results published in relevant scientific magazines and/or presented at relevant international conferences	Delivered
5.4	Organizing 4 dissemination events with relevant stakeholders (workshops, info days)	Delivered
5.5	Final International Project Conference in Tirana	Delivered
5.6	Creation of the financial and institutional sustainability strategic plan	Delivered
5.7	Sustainable cooperation with labour market	Delivered
5.8	Creation of the partner network between all institutions involved in the project	Delivered
6	MANAGEMENT Project Management and coordination	100%
6.1	Steering Committee and Advisory Board establishment	Delivered
6.2	Partnerships agreement signature and Management Plan	Delivered
6.3	Progress and final project report	Delivered

Table 5. Deliverables of ENGINE project

The quality deliverables of the project have been assessed by the external quality auditor by criteria of "relevance", "scientific/educational soundness", "impact" and "sustainability potential". Results are presented in D4.3







4. Conclusions

ENGINE project managed to fulfil its goals and achieve impactful and sustainable results during the 3 years of its implementation. COVID-19 created substantial obstacles during the first months of the project implementation, but the partnership was able to mitigate these risks, implement study visits and workshops that required the physical presence of project partners, and produce all deliverables necessary for building capacity in Albanian HEIs.

Internal evaluation results show a great degree of success for the project activities, while relatively weaker points were detected and recommendations for their mitigation (especially during the sustainability period) were agreed amongst the partners.

Two important factors were crucial for the quality of the project results, these being the provision to include as full consortium actors, a local industrial stakeholder (Albenecon) and the Albanian Agency for the Quality Assurance in HE (ASCAL).

The high commitment of participating Albanian HEIs, ownership and high quality of the project results, testify to a successful continuation of the project impact during the sustainability period.

